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Airport Improvement Projects Scheduled In Many Communities

DCA's Aeronautics Division reports that this will be a busy summer at many Montana airports because of construction projects slated to enhance the safe and efficient operation of local aviation facilities. According to Dave Kneedler, Chief of the Airport/Airways Bureau, Montana is one of the leading states in aviation and airport improvement activities because of the local support for air transportation reflected by these projects. The following are airports for which improvements are planned this summer:

<u>Airport</u>	<u>Improvements</u>
Billings	completion of the new general aviation runway and related facility
Butte	surface treatment on a runway
Circle	extend, widen and resurface main runway, install medium-intensity runway lights and VASI (Visual Approach Slope Indicator).
Dillon	increase underground fuel storage
Great Falls	completion of work on a runway
Hamilton	reconstruct main runway, add partial parallel taxiway and medium intensity lights
Helena	surface treatment on a runway
Kalispell	terminal apron and taxiway work
Laurel	reconstruct main runway, expand and rehabilitate ramp and taxiway system
Miles City	seal coat runways and taxiways
Plentywood	extend and resurface main runway, resurface ramp area and taxiway
Scobey	extend and resurface runway, resurface taxiways and apron, construct partial parallel taxiway
Sidney	rehabilitate lighting system
Stevensville	construct new runway on new alignment, provide taxiway and apron
West Yellowstone	seal coat runway, taxiways and apron, extend paved general aviation parking, install stand-by power unit
White Sulphur Springs	reconstruct main runway, taxiway and apron, install medium intensity runway lights

Wolf Point

construct new terminal building and storage facility

Montana Coal Board Awards Local Impact Grants

The Montana Coal Board approved six projects totalling over 1.5 million dollars at its last meeting held in Billings on June 19th. The largest grant was for \$675,000 which was awarded to the Rosebud County Rural Special Improvement District #74 to install water and sewer mains in a portion of the Colstrip townsite. Expansion of these services is necessary to provide for the influx of residents expected during the construction

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Coal Board Awards, Continued . . .

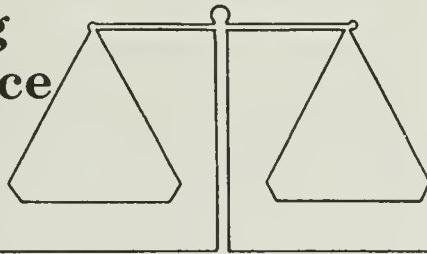
of Colstrip power plants 3 and 4.

The Board also awarded the Lame Deer School District \$450,900 to increase classroom space at their elementary school and granted the City of Forsyth \$225,000 for part of the construction costs for a new City Hall. Rosebud County was the recipient of the final three grants that included funds for the purchase of a gravel crusher, funds for the purchase of a radio for the Emergency Medical Services program; and funding of the costs of a juvenile probation officer to be located in Colstrip.

The action of the Board raised the total amount of Coal Board grants for the fiscal year which ended June 30th to \$7,825,750 from a total severance tax collection for impact assistance of \$8,867,492. The balance remaining of \$1,041,000 will revert to the Educational Trust Fund as spelled out in the enabling legislation for the Local Impact program.

The next meeting of the Coal Board has been scheduled for August 21-22 in Helena.

U.S. Supreme Court Upholds Open Space Zoning Ordinance



In a recent decision the U.S. Supreme Court has upheld the power of local governments to impose strict limitations on the use of private land in order to preserve open space. The Court, in *Agins v. City of Tiburon* (decided June 10, 1980), refused to invalidate the open space zoning ordinance of Tiburon, a suburb of San Francisco, which permitted densities of from one to five single-family dwellings on the plaintiffs' five-acre tract.

Earlier the plaintiffs had argued unsuccessfully before the California Supreme Court that that the land use restriction at issue completely destroyed the value of their property and, thus, constituted a "taking" for which they should be compensated. In rejecting this "inverse condemnation" theory, the California court had held that even where land use regulations exceed constitutional limits, the proper remedy is invalidation of the ordinance rather than the awarding of damages. Furthermore, the court had ruled, the Tiburon ordinance did not deprive the plaintiff of substantially all reasonable use of their property and therefore did not amount to an impermissible "taking."

In affirming the state court's conclusions the U.S. Supreme Court noted that property owners must be prepared to accept some loss in the market value of their land when a city decides to require "careful and orderly development" in order to preserve open space.

Hispanic Heritage Task Force To Meet

The 46th Montana Legislature passed House Joint Resolution 19 requesting that the Department of Community Affairs (DCA) undertake a thorough study of the problems affecting the citizens of Montana who are of Hispanic heritage. The staff of the Community Services Division have been assisted in this study by an advisory task force composed of members of established Hispanic-American organizations in the state of Montana.

The Task Force defined the purpose of the Montana Hispanic Study by establishing five goals:

1. Provide a cultural awareness of the Hispanic community in Montana;
2. Identify major problems which affect Hispanics living in Montana;
3. Provide statistical information as a basis for the identification of major problems for Hispanics in Montana;
4. Correlate the data and recommend solutions to identified problems of Montana's Hispanic population to be presented to the State's 47th Legislature;
5. Assist the State Legislature in securing effective legislation which will insure that Montana's Hispanics have an equal opportunity in enjoying the benefits and rights of being a citizen of the State of Montana.

In addition, specific areas of concern have been identified for special attention by the study including: 1) education levels, 2) employment opportunities, 3) treatment by the justice system, 4) cultural problems which hamper equal opportunity, 5) health care, 6) economic development opportunities for Hispanic minorities, and 7) other problems that have been identified in the data collection process.

Included as a major part of the study is an historical overview of the role of Hispanics in the development of Montana. Because of the severe shortage of published historical materials on Hispanics, the collection of oral histories has, by necessity, been utilized in an effort to fill this void. Fifteen oral interviews have been conducted to date.

Short-form questionnaires have also been distributed. Of 2,020 questionnaires sent, a 14% return was achieved, a response considered very good for this type of survey. Long-form questionnaires are now being distributed; analysis of the long survey will be completed by the end of July. During August and September the Community Services staff will compile the results of its research.

(Continued on next page . . .)

Hispanic Task Force, Continued . . .

The next meeting of the Task Force will be held on July 19, 1980 in Billings. The agenda will include an update on the statistical survey sent out in May and also a review of the process of the oral interviews being conducted with members of the Hispanic community.

For further information including meeting time and place, contact Bryant Hatch or Marianne Vestre of DCA's Community Services Division, (telephone) 449-3420.

Criminal Justice Planner Joins Indian Affairs Unit

Merle Lucas, Coordinator of Indian Affairs, has announced that Mrs. Feral Tallwhiteman has joined the staff of DCA's Indian Affairs Unit as a Criminal Justice Planner. The services Mrs. Tallwhiteman will

perform include provision of information on the latest Law Enforcement Assistance Administration (LEAA) grant application and proposal processes, monitoring the present LEAA contracts and grants for activities and compliance with progress and financial reporting requirements, provision of training and technical assistance according to the needs identified by each tribe in connection with its law enforcement program, and coordination of program activities with the U.S. Bureau of Indian Affairs (BIA) and the State Board of Crime Control.

Mrs. Tallwhiteman was previously with the Montana Department of Social and Rehabilitation Services for five and a half years where she provided training, technical assistance and contract monitoring for the Food and Nutrition Bureau's Food Stamp Outreach Program contracts throughout the State of Montana. She also represents the Montana and Wyoming Indian Tribes on the National Indian Food and Nutrition Advisory Board and Resource Center in Denver, Colorado. Her position is funded by the BIA.

Cash Management Overview

"Cash management" is one of those common "buzz" phrases we so often hear used when financial people talk about alleviating revenue shortages or identifying alternate revenue sources. What, in essence, is cash management? In its simplest terms, cash management is a process of managing monies to obtain maximum cash availability and yield on invested idle cash while ensuring that the principal invested remains secure from loss.

State law limits the types of authorized local government investments to savings or time deposits and obligations of the U.S. Government. A liberal interpretation of this law would also permit investment in repurchase agreements. A "repurchase agreement" is a contract that essentially covers the sale of government securities, and the agreement to repurchase such securities with a determined rate of interest. The advantages of such an agreement are (1) liquidity of the investment, and (2) a good rate of return.

Because the risk of investing is minimized by the available investment options, local governments should primarily be concerned with two objectives in establishing an effective investment program. Those objectives are **yield** and **availability**. Yield is the measure of net return on invested cash expressed in percentage terms. In general, the yield on investments will be higher when: maturity is longer, marketability is limited, risk is greater, and denominations are larger.

When establishing an investment program, it is wise to set a target yield as an objective. This allows you to measure the results of your program against market conditions as well as assisting in evaluation of your own program. Exactly what your local yield objective should be is best determined by the economic conditions and experience. For this reason it may be useful to con-

tact other local governments of a similar size when setting this objective.

Because of the current economic situation, yields can vary from day to day. To keep current on investment yield it is suggested that frequent contact be made with your local financial institutions (banks, savings and loans and brokerage firms). Open competition among these institutions is useful on a continuing basis in order to get the best yield on investments.

A second important objective is **cash availability**. That is, how much cash will be required to meet cash needs at various points during the fiscal year (i.e. redeem warrants, debt service, etc.). Analyzing these requirements correctly is the name of the game in cash management. To cut cash balances too closely might mean premature liquidation of investments and a stiff penalty. On the other hand, if available cash exceeds requirements then money is usually left in non-interest bearing checking accounts when it could be earning revenue.

The ability to project "how much" cash will be available, "when," and for "how long" is the key to effective cash management. This cash projection is dependent first, upon accurate historical records generated by the financial system and second, upon a detailed analysis of receipt and disbursements trends for a prior period of from three to five years.

To complete this three to five year analysis of receipts and disbursements, several factors should be kept in mind. First, utilize the major account breakdowns of the financial system to group receipts and disbursements. Second, compile the historical records on a monthly basis. Third, compute the net cash available month-by month for at least a 12 month period and fin-

(Continued on next page . . .)

Cash Management Overview, Con't. . . .
ally, describe those computations through the use of a graph.

A graphic cash budget is the framework for any cash investment plan. The cash budget should then be adjusted for any significant cash increase or decreases anticipated during the next fiscal period.

The information presented in such a cash budget can be used to determine how much cash you will be able to invest and for what length of time. By carefully staggering the maturities of various investments, higher yield securities may be acquired without endangering the government's ability to meet cash needs. This knowledge of the timing and extent of cash availability assists the cash manager to take an informed approach to an investment strategy.

Evaluation of the investment program should be accomplished on a continuing basis to tell the treasury manager or the government managers just how successful the investment program has been. The evaluation should be comparative. Results can be compared to other local governments of similar size or to the objective yield that was established at the beginning of the year. The following formula can be used to compute your actual yield for evaluation purposes:

$$\text{Yield} = \frac{\text{Net Dollars Earned From Investment During Period}}{\text{Average Daily Balance Invested During Period}} \times \frac{365}{\text{No. of Days During Period}}$$

Yield can and should be evaluated at three points: (1) when an investment matures, (2) quarterly and (3) at the time an investment decision occurs.

It is hoped that the above overview can assist managers in formulating an effective cash management program. Obviously, there is much more to an investment program than can be discussed here. For additional information on cash budgets contact Tom Farrell, Division of Local Government Services (telephone) 449-3010.

U of M Offers Assistance With Telephone Surveys

State and local agencies and other groups interested in conducting telephone surveys can obtain help in generating random samples of households with telephones from the Bureau of Business and Economic Research, University of Montana.

The Bureau has in operation a random dialing sample selection program incorporating up-to-date number files for all telephone companies operating in Montana. Samples can be generated on a state-wide basis or for counties and groups of counties.

The telephone survey technique has been used with considerable success by the Bureau of Business and Economic Research in recent months. It has proven to be a cost-effective method for certain types of surveys.

Persons interested in discussing the possibility of using the Bureau program to generate a sample should

contact Susan Selig Wallwork or Maxine C. Johnson at the Bureau of Business and Economic Research, University of Montana, Missoula 59812, (telephone) 243-5113 or 125-5113 (state telephone system).

Report Questions Gasohol Feasibility

Ed. Note: Recently the U.S. Congress passed a \$20 billion appropriation to launch a synthetic fuels industry. Included in the bill was \$1.2 billion to encourage the production of the gasoline-alcohol mixture, gasohol. There has been considerable interest in the potential of gasohol in Montana, as well. The Department of Agriculture administers a no-interest loan fund for development of gasohol plants while the Department of Natural Resources and Conservation administers the Renewable Energy Program which has grant moneys available for gasohol projects. Major gasohol projects have been proposed for Glasgow, Great Falls and Miles City. The Montana Legislature, like those in many neighboring states, has given a tax break to gasohol to encourage its development. The following article appeared in last month's issue of Upper Midwest Report, a publication of the Upper Midwest Council and may be of interest to MCN readers. The Minneapolis-based Council was founded 21 years ago as non-profit, non-partisan corporation to conduct research and disseminate information regarding problems and issues of concern to the Upper Midwest (Montana, North and South Dakota, Minnesota, western Wisconsin and Michigan's Upper Peninsula.)

Gasohol will not contribute much to easing the nation's energy problems in the next five to seven years, even though a number of individuals and companies have announced plans to build and operate plants producing ethanol alcohol from grains, according to a report published in May by the Upper Midwest Council.

The report, entitled "Gasohol: Problems and Potential," contends that fact is attributable to the expense of starting gasohol plants, the high cost and negligible energy efficiency of production and the need for government tax exemptions to keep the fuel competitive. Better prospects for gasohol are possible through refinement technologies producing ethanol from sources other than grains or production of methanol, alcohol derived from coal.

For example, President Carter's announced goal for 1992 alcohol production of 10 billion gallons is equal to 10 percent of total gasoline consumption expected for that year but amounts to a little more than 2 percent of total U.S. energy consumption.

Gasohol is popular and accounts for 10 to 15 percent of sales at service stations carrying the fuel, but its development is due to farmers seeking new markets for their grain and consumers seeking freedom from oil imports. Production and sales have been aided by the

(Continued on next page . . .)

Gasohol Feasibility, Continued . . .

availability of governmental financial assistance for construction and tax exemptions on sale of gasohol, the report states.

Currently, gasohol is not economical in the marketplace, and some early promoters of the fuel are leaving the business.

"Even with substantial federal and state tax exemptions on gasohol sales at the pump, the new fuel sells for 2 to 4 cents more than unleaded gasoline, the fuel it seeks to replace," the report states. The report further quotes an official of the Highway Oil Co., of Topeka, Kan., which is leaving the gasohol business "because the price of alcohol has risen too high to make the blended fuel competitive."

And, Standard Oil of Indiana, Inc., (Amoco) officials are quoted as saying they believe gasoline prices will have to increase perhaps threefold over 1979 prices before ethanol can stand on its own in the marketplace."

Additionally, tax exemptions for gasohol have eaten into state highway funds. South Dakota, for example, has lost \$75,000 in revenues which would have gone into highway funds and legislators say they are considering dropping exemptions for the alcohol fuel. "Iowa, with its 10-cents-per-gallon tax break, loses roughly \$950,000 on sales of 9.5 million gallons of gasohol each month."

Production of a volume of alcohol equal to 10 percent of the expected annual gasoline consumption of 1992 would require public and private investments of \$85 billion, the report states.

Such production would require construction of some 500 individual scale plants, each capable of producing 20 million gallons of ethanol annually; the report estimates private outlay at \$25 billion. The remainder would be federal and state tax exemptions necessary to allow gasohol to compete in the marketplace, the report states.

Current goals for alcohol consumption amount to mere fractions of expected gasoline consumption, but would account for a large proportion of the nation's grain supplies and would thus adversely affect the cost and supply of grain.

The report's author, Michael J. Murphy, manager of energy research and assistant director of the Upper Midwest Council, writes: "Meeting President Carter's 1992 goal of 10 billion gallons of alcohol (or 10 percent of expected gas consumption) would require use of fully half of the nation's average annual corn crop in one year. President Carter's goal of 500 million gallons of alcohol in 1982 (roughly 10 percent of expected unleaded gasoline consumption for that year) amounts to but one-half of one percent of total gasoline consumption projected, and only one-fourth of one percent of total crude oil consumption anticipated for that year."

Substituting cellulosic wastes (agricultural and urban wastes) as the feedstock for ethanol, or making methanol from coal, could be more economical than using grains, the report states.

"It is estimated that only 10 to 15 percent of the total volume of cellulosic wastes available would be needed to produce enough ethanol to reduce United States crude oil imports by 10 percent and total national crude oil consumption by 5 percent," the report states. However, the technologies for that production are not yet refined. Alcohol production from grain may have the effect of establishing a market that can later be supplied by more efficient, newer technologies as they are developed, the report suggests.

"A key issue is whether the combined public and private investment required to reach the administration's goals for alcohol production, relative to the impact on over-all fuel supplies, is the most desirable course of action. Some experts believe as much, if not more, impact could be had through investments in energy conservation programs."

Copies of this report are available for \$8 by writing or calling the council at 250 Marquette Ave., Minneapolis, Minn., 55480 or (612) 373-3724.

Carbon County Seeks Applicants for Planning Director

The Carbon County Planning Board is seeking applicants for the position of Planning Director.

The Planning Director will be responsible for directing the county planning program, the Planning Office and other functions and activities for the County Planning Board. This is a professional planning position and applicants should be capable of setting up budgets, directing staff activities and office functions, and working with the planning board and local elected officials. The director will prepare routine ordinances and resolutions, research legal and property data, conduct studies and write reports on problems concerning building construction, zoning, subdivision, annexation petitions, and perform other assigned duties, as required.

The position requires a working knowledge of the principles and practices of community planning and development; an ability to establish and maintain effective working relationships with other employees and the general public; an ability to conduct meetings, surveys, and investigations and collect, interpret, and analyze data pertinent to planning; and an ability to prepare clear and concise oral and written reports.

Applicants must possess a bachelor's degree in planning or a related field and three years of planning experience. Additional job-related education may be substituted for education for up to two years.

Applications will be accepted until 2:00 p.m. July 17th. Applications or resumes should be mailed to the Carbon County Commissioners, P.O. Box 879, Red Lodge, MT 59068.



Publications of Interest

The United States is quickly running out of the fuels which have enabled it to achieve a high standard of technological development. This predicament has resulted in nationwide investigations of alternative energy sources. Among the many alternatives being considered is solar energy. Harnessing the sun's power is considered an attractive alternative because it is a renewable resource which does not pollute. In contrast to conventional sources of energy, its use eliminates the need for refining, transporting, and conveying fuel and power over long distances. The use of solar energy for heating and cooling promises a more rapid payoff than other energy alternatives because the basic technology already exists. Considerable research, development, and demonstration activities have been initiated in the public and private sectors to facilitate its widespread utilization.

Everyday the sun showers the earth with several thousand times as much energy as we consume. The

solar energy annually striking the roof of a typical residence, for example, is ten times as great as its annual heat demand. However, our present technology allows us to capture and efficiently use only a small percentage of the sun's energy. Nevertheless, the energy potential of the sun is great enough to warrant serious consideration and continuous development of ways to harness this energy for man's use.

Although solar energy is available and free, its utilization is not. There are technical, social and economic problems which must be resolved first in order to change the existing patterns of energy use.

This month's "Publications of Interest" highlights four major publications released by the U.S. Department of Housing and Urban Development which contain valuable information regarding the practical utilization of solar energy, particularly pertaining to residential construction.



Last month's *MCN* described, in general, what local governments can do in the areas of building code enforcement, planning, subdivision regulation, zoning and tax assessment to encourage utilization of solar energy in building construction. A pair of new guidebooks on planning for solar access will help the planning boards or zoning commissions that want to incorporate solar access into local planning and zoning objectives—but are unsure of what to do and how to do it. Both guidebooks have been developed by the American Planning Association under contract to the U.S. Department of Housing and Urban Development. Targeted separately to local planning officials and private developers, each publication offers practical, up-to-date information on means to ensure reasonable solar access in residential development. The first of these, *Protecting Solar Access for Residential Development: A Guidebook for Planning Officials*, is currently available from the Government Printing Office for \$4.75 (GPO stock no. 023-000-00523-9).

County or municipal planning and zoning requirements are crucial to promoting the widespread use of solar energy in residences. Recognizing this, some planning boards have already begun to take solar access considerations into account when developing comprehensive land-use plans. To facilitate use of solar energy planners may need to modify conventional planning or land-use regulatory tools, such as building height limitations, lot size and density requirements, street

orientations, tree placement, and the development and positioning of open areas.

Few zoning officials and very few builders say they have seen solar access problems yet. But some zoning officials fear that solar access problems will arise as residential solar construction becomes more common. They see two potential difficulties in protecting solar access in new residential development: (1) ensuring the compatibility of solar construction with existing zoning requirements and (2) preventing widespread shading of solar collectors by vegetation.

Protecting Solar Access is designed to help planning officials deal with these issues. Specifically:

- The document suggests techniques for modifying existing ordinances to exempt solar equipment from height and setback limitations. For example, solar energy systems in certain areas could simply be designated as uses to which zoning restrictions do not apply.
- Guidelines for protecting solar access in new subdivision regulations are included. Important solar access considerations in these development situations are street orientation, lot size, and lot orientation. A subdivision plan could virtually guarantee reasonable solar access by using these regulatory tools in appropriate ways.

(Continued on next page . . .)

Publications of Interest, Continued . . .

- The document provides an extensive discussion of the issues and techniques involved in controlling vegetation for solar access protection, including means for reconciling access needs with aesthetic and comfort considerations.

From: *Solar Dwelling Design Concepts*



Land-use and zoning regulations are only one side of the coin, however. Even with public land-use plans favoring solar access, it is the private subdivision developer who will ultimately control how many sites are actually available for current or future solar construction. And even without specific solar planning regulations, builders have substantial leeway to protect solar access in developments right now through street and lot orientation and other tools.

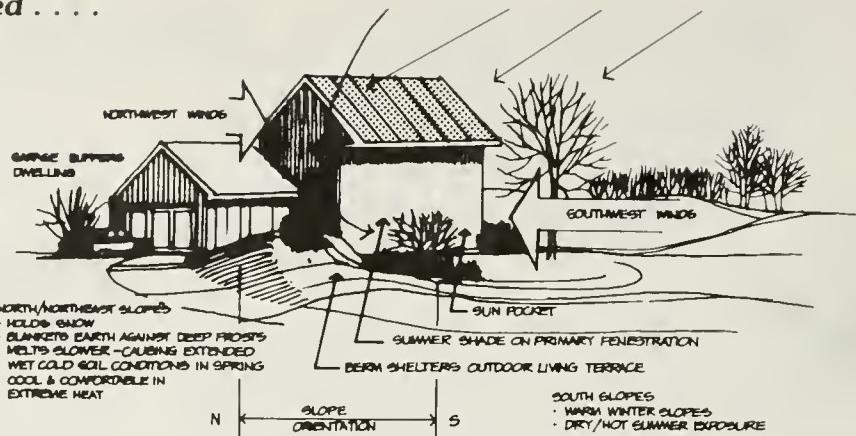
Therefore, a second handbook, *Site Planning for Solar Access: A Guidebook for Residential Developers and Site Planners* was developed to help builders use existing planning tools to provide solar access in their developments or subdivisions. The book discusses elements of site planning and building design that are relevant for solar access protection for both active and passive solar energy systems, and it illustrates how such protection can be afforded in a variety of development contexts. Planning tools discussed included street direction, the use of vegetation and open spaces, and lot positioning. All of these mechanisms are discussed in terms of various climates, features and requirements and in terms of different housing types. Finally, the manual attempts to relate its information for private site planners to public planning considerations and constraints. It stresses that solar developments can easily be designed to fit the requirements of most conventional land-use controls.

The book is richly illustrated with over 100 drawings showing every facet of site planning for solar access. Five appendices provide additional information on solar-related terminology and other more technical concerns. *Site Planning for Solar Access: A Guidebook for Residential Developers and Site Planners* is available for \$4.75 from the Government Printing Office. Refer to stock number 023-000-00545-0.



Solar Dwelling Design Concepts, distributed by the U.S. Department of Housing and Urban Development, Office of Policy Research and Development, 146 pages.

The focus of this publication is how the interaction of climate, comfort, building sites, and solar systems influence the design of solar heated and cooled dwellings. The emphasis of the publication is on new construction as opposed to redesign of existing dwellings, although the major factors influencing new solar dwelling design



apply equally to redesign of existing structures. The publication includes numerous illustrations to help convey solar dwelling and site design concepts for planners and designers, home builders and owners, and local officials.

The report can be ordered from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, Stock No. 023-000-00334-1. The cost is \$2.30.



The First Passive Solar Home Awards, distributed by the U.S. Department of Housing and Urban Development, Office of Policy Research and Development, 226 pages.

During the summer of 1978 HUD conducted a Residential Passive Solar Design competition in order to identify promising new passive solar designs. Over 550 designs were submitted; of these 162 were selected for awards, 145 for new homes and 17 for "retrofit" installations of passive solar elements on existing homes. According to HUD, while these designs are for passive solar homes which make little use of conventional energy sources except for backup, the design principles can be used in any home design. In addition to the descriptions and drawings of the 162 award winners contained in the book the publication also addresses such topics as Marketing the Passive Solar Home, Selecting the Best Solar Alternative, and the Most Commonly-made Mistakes. HUD is especially enthusiastic about the promise of solar design in residential development because 80 of the winners in the new home category were being built for sale on the open market by builders who believe that passive solar will sell.

The report can be ordered from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, Stock Number 023-000-00517-4. The cost is \$5.50.

3200 copies of this public document were published at an estimated cost of 15.4¢ per copy, for a total cost of \$491.74 which included \$316.00 for printing by Creative Press of Helena, \$55.10 for assembly, labeling and sorting by Helena Rehabilitation Industries, and \$85.21 for postage.



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